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TABLE 4.3.1
DESCRIPTION OF REMEDIAL ACTION ALTERNATIVES
OPERABLE UNIT 1 – TITLEIST PROPERTY SURFACE SOILS
PHASE III REMEDIAL ACTION PLAN
FORMER AEROVOX FACILITY
NEW BEDFORD, MASSACHUSETTS

The Aerovox Project Operable Unit 1 (OU1) is comprised of the surface soils above the peat layer within the eastern unpaved landscaped area of the Acushnet/Titleist property. The remedial goals for OU1 are to:

1. Eliminate or reduce concentrations, to the extent feasible, or control access to areas with soils with contaminant concentrations > than their respective UCLs (i.e., surface soils with PCB concentrations > 100 mg/kg)
2. Eliminate/reduce, to the extent feasible, or control access to surface soils that present unacceptable risk under current or foreseeable future site use.

Parameter	ALTERNATIVE 1 Removal of PCB Impacted Soils in Upper Two Feet (<1 mg/kg) and at Depth (>100 mg/kg)	ALTERNATIVE 2 Removal of PCB Impacted Soils at Concentrations Greater Than Commercial/Industrial Risk Based Concentration (4 mg/kg)	ALTERNATIVE 3A Removal and Off-Site Disposal of PCB Impacted Soils at Concentrations Greater than Unrestricted Use Risk Based Concentration (1 mg/kg)	ALTERNATIVE 3B Removal and On Site Consolidation of PCB Impacted Soils at Concentrations Greater than Unrestricted Use Risk Based Concentration (1 mg/kg)	ALTERNATIVE 4 PCB Impacted Soils Addressed with Asphalt Cap (> 1 mg/kg and < 100 mg/kg) or Engineered Barrier (> 100 mg/kg)
Size and Configuration	This alternative includes: excavate and remove soils in top 2' with PCB concentrations > 1 mg/kg and deeper locations with PCB concentrations > 100 mg/kg (the MCP UCL), install demarcation marker layer and two feet of clean backfill, provide AUL to restrict foreseeable future use of soil below the demarcation marker layer, restore landscaping, transport and dispose of excavated material. Excavation would be completed in the footprint area shown on Figure 2-1. Concentration based subareas and corresponding depths are also shown on Figure 2-1. Soil excavation would not go below the top of peat layer. This alternative would include the excavation of approximately 5,800 cubic yards of soil. An AUL would be placed on the impacted portion of the property to restrict foreseeable future site uses and provide for maintenance of the soil cap.	This alternative includes: excavate and remove surface soils that are currently above risk based concentration for current site use, backfill with clean fill and restore landscaping, provide AUL to restrict foreseeable future use, transport and dispose of excavated material. This alternative is similar to Alternative 1 with the exception that soils with concentrations of contaminants above the risk based concentrations for the current site usage (commercial/industrial) would be removed and disposed of off-site. The soils to be addressed under this alternative and their respective depths are depicted on Figure 2-2. This alternative would include the excavation of approximately 7,900 cubic yards of soil. An AUL would be placed on the impacted portion of the property to restrict foreseeable future site uses as commercial/industrial only and provide for maintenance of the soil cap.	This alternative includes: excavate and remove surface soils that are currently above risk based concentrations for foreseeable future use as residential property, backfill with clean fill and restore landscaping, transport and dispose of excavated material. This alternative would include the excavation of approximately 9,700 cubic yards of soil. This alternative is similar to Alternative 2 with the exception that soils with concentrations of contaminants above the risk based concentrations for residential usage would be removed and disposed of off-site. The soils to be addressed under this alternative and their respective depths are depicted on Figure 2-3. As the soils would be removed to allow for a future residential site usage, no AUL is necessary.	This alternative includes: excavate and remove surface soils that are currently above risk based concentrations for foreseeable future use as residential property, backfill with clean fill and restore landscaping, consolidation of excavated material. This alternative would include the excavation of approximately 9,700 cubic yards of soil. This alternative is similar to Alternative 2 with the exception that soils with concentrations of contaminants above the risk based concentrations for residential usage would be removed from the Titleist property and consolidated on site with similar soils on the Aerovox property. The soils to be addressed under this alternative and their respective depths are depicted on Figure 2-3. As the soils would be removed to allow for a future residential site usage, no AUL is necessary.	This alternative includes: install a demarcation layer and pavement cap over soils with PCB concentrations > 1 mg/kg and an engineered barrier at locations with PCB concentrations > 100 mg/kg, provide AUL to restrict foreseeable future use and provide for cap maintenance, dispose of soil, if any, that needs to be removed to construct the Engineered Barrier. The pavement cap with a minimum asphalt thickness of 3 inches would be installed over the footprint area shown on Figure 2-4. In areas where soils are present at concentrations in excess of their respective UCL, install a cap that meets the requirements for an Engineered Barrier as defined in the MCP. These Engineered Barrier areas are also shown on Figure 2-4. This alternative would include the excavation of soil only if needed to accommodate the placement of the Engineered Barrier. An AUL would be placed on the impacted portion of the property to restrict foreseeable future site uses and provide for maintenance of the asphalt cap and Engineered Barrier.
Remediation Time	This remedial alternative is estimated to take approximately two to three months to complete.	This remedial alternative is estimated to take approximately two to three months to complete.	This remedial alternative is estimated to take approximately three to four months to complete.	This remedial alternative is estimated to take approximately two to three months to complete.	This remedial alternative is estimated to take approximately one month to complete.

Parameter	ALTERNATIVE 1 Removal of PCB Impacted Soils in Upper Two Feet (<1 mg/kg) and at Depth (>100 mg/kg)	ALTERNATIVE 2 Removal of PCB Impacted Soils at Concentrations Greater Than Commercial/Industrial Risk Based Concentration (4 mg/kg)	ALTERNATIVE 3A Removal and Off Site Disposal of PCB Impacted Soils at Concentrations Greater than Unrestricted Use Risk Based Concentration (1 mg/kg)	ALTERNATIVE 3B Removal and On Site Consolidation of PCB Impacted Soils at Concentrations Greater than Unrestricted Use Risk Based Concentration (1 mg/kg)	ALTERNATIVE 4 PCB Impacted Soils Addressed with Asphalt Cap (> 1 mg/kg and < 100 mg/kg) or Engineered Barrier (> 100 mg/kg)
Spatial Requirements	Remedial activities could be conducted within the confines of the Site. Excavated soils may be direct loaded for disposal or securely staged within the Aerovox property as needed.	Remedial activities could be conducted within the confines of the Site. Excavated soils may be direct loaded for disposal or securely staged within the Aerovox property as needed.	Remedial activities could be conducted within the confines of the Site. Excavated soils may be direct loaded for disposal or securely staged within the Aerovox property as needed.	Remedial activities could be conducted within the confines of the Site. Excavated soils would be direct loaded for transfer to the consolidation cell within the Aerovox property as needed.	Remedial activities could be conducted within the confines of the Site.
Disposal Options	Excavated soils would be disposed of at an approved facility. Water generated from dewatering would be treated on-site and discharged either to the river and/or the local POTW or transported off site for treatment and disposal.	Excavated soils would be disposed of at an approved facility. Water generated from dewatering would be treated on-site and discharged either to the river and/or the local POTW or transported off site for treatment and disposal.	Excavated soils would be disposed of at an approved facility. Water generated from dewatering would be treated on-site and discharged either to the river or the local POTW or transported off site for treatment and disposal.	Excavated soils would be placed in a consolidation cell on the Aerovox property (OU3). The soil would be placed with other similar soils for subsequent capping. Water generated from dewatering would be treated on-site and discharged either to the river or the local POTW or transported off site for treatment and disposal.	Soil excavation is not included with this alternative. Minor amounts of remediation waste, if generated, would be disposed of at an approved facility. Generation of dewatering water is not anticipated.
Substantive Permit Requirements	Work in the Riverfront Area and Buffer Zone may require permitting under the Wetlands Protection act and local ordinances. Work within 25 feet of the River would need to be designed to support the City of New Bedford's planned Riverwalk. Additional TSCA risk based approval under 40 CFR 761.61(c) may be required for work inconsistent with the existing TSCA determination for the project. Discharge of groundwater (from dewatering) to surface water or to the local POTW may require permitting and/or approvals. If 1 or more acres of land are disturbed, an EPA Construction General Permit for Stormwater and CSWPPP would be required.	Work in the Riverfront Area and Buffer Zone may require permitting under the Wetlands Protection act and local ordinances. Work within 25 feet of the River would need to be designed to support the City of New Bedford's planned Riverwalk. Additional TSCA risk based approval under 40 CFR 761.61(c) may be required for work inconsistent with the existing TSCA determination for the project. Discharge of groundwater (from dewatering) to surface water or to the local POTW may require permitting and/or approvals. If 1 or more acres of land are disturbed, an EPA Construction General Permit for Stormwater and CSWPPP would be required.	Work in the Riverfront Area and Buffer Zone may require permitting under the Wetlands Protection act and local ordinances. Work within 25 feet of the River would need to be designed to support the City of New Bedford's planned Riverwalk. Additional TSCA risk based approval under 40 CFR 761.61(c) may be required for work inconsistent with the existing TSCA determination for the project. Discharge of groundwater (from dewatering) to surface water or to the local POTW may require permitting and/or approvals. If 1 or more acres of land are disturbed, an EPA Construction General Permit for Stormwater and CSWPPP would be required.	Work in the Riverfront Area and Buffer Zone may require permitting under the Wetlands Protection act and local ordinances. Work within 25 feet of the River would need to be designed to support the City of New Bedford's planned Riverwalk. Additional TSCA risk based approval under 40 CFR 761.61(c) may be required for work inconsistent with the existing TSCA determination for the project. Discharge of groundwater (from dewatering) to surface water or to the local POTW may require permitting and/or approvals. If 1 or more acres of land are disturbed, an EPA Construction General Permit for Stormwater and CSWPPP would be required.	Work in the Riverfront Area and Buffer Zone may require permitting under the Wetlands Protection act and local ordinances. Work within 25 feet of the River would need to be designed to support the City of New Bedford's planned Riverwalk. If 1 or more acres of land is disturbed, an EPA Construction General Permit for Stormwater and CSWPPP would be required.